

A short overview of some DSP applications

Izotova, Olga Telekommunikatsioon '98 : rahvusvahelise telekommunikatsioonipäeva konverentsi ettekannete materjalid, 15. mai 1998 1998 / lk. 54-59

AC measurements with digital signal processing

Märtens, Olev BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 121-122: ill

An output signal based combination of two NLMS adaptive algorithms

Trump, Tõnu 16th International Conference on Digital Signal Processing : July 5-7, 2009, Santorini, Greece 2009 / ? p <https://ieeexplore.ieee.org/abstract/document/5201077>

Code development of a DSP-FPGA based control platform for power electronics applications

Minambres-Marcos, Victor; **Roasto, Indrek**; Szczepankowski, P.; Romero-Cadaval, Enrique; **Vinnikov, Dmitri**; Barrero-Gonzalez, Fermin 2015 IEEE International Conference on Industrial Technology (ICIT 2015) : Seville, Spain, 17-19 March 2015 2015 / p. 2890-2895 : ill <https://doi.org/10.1109/ICIT.2015.7125524> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Coherent algorithm for estimation of delay time

Arro, Ilmar; Ruuto, Urmas BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 203-206: ill

Comparison of different microcontroller development boards for power electronics applications

Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu 5th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology : Kuressaare, January 14-19, 2008 2008 / p. 103-107 : ill

Control system development environment with MatLAB SIMULINK real time workshop

Lehtla, Madis Baltic electrical engineering review 1998 / 1, p. 21-24: ill

Correlation and digital signal processing techniques for the reduction of detection limits of bromate and bromide in model water samples by ion chromatography with direct ultraviolet detection

Kuldvee, Ruth; Kaljurand, Mihkel; Smit, Henri C. Journal of chromatography A 1997 / p. 247-257: ill

DASIP 2016 : [special issue]

2017 <https://www.sciencedirect.com/journal/journal-of-systems-architecture/special-issue/10N2RZ46VP0>

Design of minimum-phase FIR filters with delay constraints

Vainio, Olli; Ovaska, Seppo J. BEC'96 : the 5th Biennial Baltic Electronics Conference, October 7-11, 1996, Tallinn, Estonia : proceedings 1996 / p. 401-404: ill

Determination of the impedance of lithium-ion batteries using methods of digital signal processing

Rahmoun, Ahmad; Loske, Moritz; Rosin, Argo Energy procedia 2014 / p. 204-213 : ill <https://doi.org/10.1016/j.egypro.2014.01.174> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Digisignaalide töötlemine

Arro, Ilmar; Derkatš, Julia 2005 http://www.ester.ee/record=b2005220*est

Digitaalne signaali- ja pilditöötlus : harjutused

Ferenets, Rain 2007 http://www.ester.ee/record=b2244506*est

Digitaalne signaali- ja pilditöötlus : loengukonspekt

Lipping, Tarmo 2007 http://www.ester.ee/record=b2234022*est

Digitaalne signaalitöötlus : valitud FIR-filtrite disainimine

Ferenets, Rain 2011 http://www.ester.ee/record=b2737258*est

Digitaalse signaalitöötlusega sonar

Ruuto, Urmas Raadiotehnika '97 : ettekannete materjalid 1997 / lk. 50-54

Digitaalsed signaaliprotsessorid

Toomsalu, Arvo Arvutustehnika ja Andmetöötlus 1996 / 10, lk. 2-6; 11, lk. 2-8; 12, lk. 3-10

Digitaalsed signaaliprotsessorid

Toomsalu, Arvo Arvutustehnika ja Andmetöötlus 1997 / 1, lk. 4-14: ill

Distributed signal processing for situation assessment in cyber-physical systems = Hajutatud signaalitöötlus olukorra hindamiseks küberfüüsilistes süsteemides

Astapov, Sergei 2016 <http://digi.lib.ttu.ee/ii/?6212> https://www.ester.ee/record=b4603470*est

DSP performance testing

Mellik, Andres Conf.proc. Virtuelle Instrumente in der Praxis 2004 / p. 220-224

DSP-based AC measurement unit

Märtens, Olev Proceedings of the 1999 Finnish Signal Processing Symposium FINNSIG'99 : May 31, 1999, University of Oulu, Finland 1999 / p. 247-251

DSP-based device for multi-frequency bio-impedance measurement

Märtens, Olev Medical & biological engineering & computing 1999 / Suppl. 1, Proceedings of the 11th Nordic-Baltic Conference on Biomedical Engineering : NBCBME'99 : June 6-10, 1999, Tallinn, Estonia, p. 165-170

A DSP-based EBI, ECG and PPG measurement platform

Abdullayev, Anar; Rist, Marek; Märtens, Olev; Metshein, Margus; Larras, Benoit; Frappe, Antoine; Gautier, Antoine; Min, Mart; John, Deepu; Cardiff, Barry; Krivošei, Andrei; Annus, Paul IEEE transactions on instrumentation and measurement 2023 / art. 2007808, 8 p <https://doi.org/10.1109/TIM.2023.3320771> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

DSP-based electrical impedance tomography device: implementation and experiments

Abdullayev, Anar; Rist, Marek; Metshein, Margus; Märtens, Olev 2025 IEEE International Instrumentation and Measurement Technology Conference (I2MTC) 2025 / 6 p <https://doi.org/10.1109/I2MTC62753.2025.11079140>

A DSP-based multichannel EBI measurement device

Abdullayev, Anar; Rist, Marek; Krivošei, Andrei; Metshein, Margus; Land, Raul; Märtens, Olev 2024 IEEE International Instrumentation and Measurement Technology Conference (I2MTC) : proceedings 2024 <https://doi.org/10.1109/I2MTC60896.2024.10560714> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

DSP-based power-quality monitoring device

Märtens, Olev; Trampärk, Harri; Liimets, Aivar; Nobel, Peter; Veskimeister, Andres; Järvalt, Aldur WISP2007 proceedings : 5th IEEE International Symposium on Intelligent Signal Processing : Alcalá de Henares, Madrid (Spain), October 3-5, 2007 2007 / [5] p <https://ieeexplore.ieee.org/document/4447591>

DSP-based RMS measurement converter

Märtens, Olev Telekommunikatsioon '98 : rahvusvahelise telekommunikatsioonipäeva konverentsi ettekannete materjalid, 15. mai 1998 1998 / lk. 66-72: ill

Exploiting data transfer locality in memory mapping

Ellervee, Peeter; Miranda, Miguel; Catthoor, Francky; Hemani, Ahmed 25th EUROMICRO conference : Informatics : Theory and Practice for the New Millennium : Milan, Italy, September 8-10, 1999 : proceedings. Volume I 1999 / p. 14-21 : ill <https://ieeexplore.ieee.org/document/793132>

FPGA-based implementation of EEG analyzer for detection of depressive disorder

Gorev, Maksim; Pesonen, Vadim; Mihhailov, Dmitri Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK neljanda aastakonverentsi artiklite kogumik : 26.-27. novembril 2010, Essu mõis 2010 / lk. 69-72 : ill

Fractional Fourier transform-based signal separation for ultrasonic guided wave inspection of plates

Peng, Chengxiang; Annus, Paul; Rist, Marek; Land, Raul; Ratasseppe, Madis Sensors 2024 / art. 7564 <https://doi.org/10.3390/s24237564> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High speed data preprocessing for bioimpedance measurements : architectural exploration

Ellervee, Peeter; Annus, Paul; Min, Mart The 27th NORCHIP Conference : Trondheim, Norway, November 2009 2009 / [4] p <https://ieeexplore.ieee.org/document/5397838>

High-performance analogue measurement using internal enhanced PWM and ADC of a DSP-chip

Märtens, Olev; Min, Mart; Trampärk, Harri; Liimets, Aivar WISP2007 proceedings : 5th IEEE International Symposium on Intelligent Signal Processing : Alcalá de Henares, Madrid (Spain), October 3-5, 2007 2007 / [5] p <https://ieeexplore.ieee.org/document/4447593>

Improved impedance analyzer with binary excitation signals

Märtens, Olev; Land, Raul; Min, Mart; Annus, Paul; Rist, Marek; Reidla, Marko 2015 IEEE 9th International Symposium on Intelligent Signal Processing (WISP 2015) : Siena, Italy, 15-17 May 2015 : [proceedings] 2015 / p. 25-29 : ill

Improvement of signal-to noise ratio of electropherograms and analysis reproducibility with digital signal processing and

multiple injections

Kuldvee, Ruth; Kaljurand, Mihkel; Smit, H.C. HRC : Journal of high resolution chromatography 1998 / p. 169-174: ill
[https://doi.org/10.1002/\(SICI\)1521-4168\(19980301\)21:3%3C169::AID-JHRC169%3E3.0.CO;2-B](https://doi.org/10.1002/(SICI)1521-4168(19980301)21:3%3C169::AID-JHRC169%3E3.0.CO;2-B)

Information techniques for sensor- and microsystems

Holmer, R.; Tränkler, Hans-Rolf BEC : Baltic Electronics Conference : proceedings of the 4th Biennial Conference, October 9-14, 1994, Tallinn (Estonia). 1 1994 / p. 39-50: ill

A modular 6LoWPAN-based wireless sensor body area network for health-monitoring applications

Le Moullec, Yannick; Lecat, Yoann; Annus, Paul; Land, Raul; Kuusik, Alar; Reidla, Marko; Hollstein, Thomas; Reinsalu, Uljana; Tammemäe, Kalle; Ruberg, Priit APSIPA ASC 2014 : Asia-Pacific Signal and Information Processing Association Annual Summit and Conference 2014 : December 9-12, 2014, Siem Reap, city of Angkor Wat, Cambodia 2014 / [4] p. : ill

Multichannel sonar system with digital processing

Arro, Ilmar; Portsmouth, Raivo Conference proceedings UDT 1996 / p. 40-43

Multi-frequency and multi-channel bio-impedance measurement solution [Electronic resource]

Märtens, Olev; Min, Mart; Land, Raul; Annus, Paul Proceedings of 7th Nordic Signal Processing Symposium (NORSIG 2006) : Reykjavik, Iceland, June 7-9, 2006 2006 / [4] p. [CD-ROM] <https://ieeexplore.ieee.org/document/4052217>

Multifrequency vector impedance measurement: undersampled DFT with noise pre-filtering

Märtens, Olev; Min, Mart BEC 2006 : 2006 International Baltic Electronics Conference : Tallinn University of Technology, October 2-4, 2006, Tallinn, Estonia : proceedings of the 10th Biennial Baltic Electronics Conference 2006 / p. 217-220 : ill

A multi-objective reinforcement learning framework for dynamic NOMA-based resource allocation in 6G mMTC networks

Latif, Aamir; Elgarhy, Osama Mohamed Mostafa; Le Moullec, Yannick; Alam, Muhammad Mahtab Future Frontiers : PhD Conference on Emerging Technologies : Book of Abstracts 2025 / p. 24 ; oral 14 https://tuit.ut.ee/sites/default/files/2025-05/PhD%20Conference%202025%20Book%20of%20Abstracts_pub3.pdf

Non orthogonal multiple access: basic concepts and misconceptions

Hassan, Syed Rizwan; **Shabbir, Noman;** Unbreen, Arooj; Rehman, Ateeq Ur; Iqbal, Ahmad NFC IEFR journal of engineering and scientific research 2020 / 4 p <http://doi.org/10.24081/njesr.2019.1.0001>

On-demand ultra-dense cloud drone networks : opportunities, challenges and benefits

Sharma, Navuday; Magarini, Maurizio; Jayakody, Dushantha Nalin K. IEEE Communications Magazine 2018 / p. 85–91 : ill
<http://dx.doi.org/10.1109/MCOM.2018.1701001>

Parameter estimation by sparse reconstruction with wideband dictionaries = Signaali parameetrite hindamine kasutades hajusat taastamist laiaribaliste sõnastikega

Butsenko, Maksim 2018 <https://digi.lib.ttu.ee/i/?11199> https://www.ester.ee/record=b5176162*est

Piccolo-stick and pcb-coil based simple coin validator

Reidla, Marko; Märtens, Olev; Land, Raul; Rist, Marek EDERC 2012 : proceedings of the 5th European DSP in Education & Research Conference : 13-14 September 2012, Amsterdam, The Netherlands 2012 / p. 81-84
<https://ieeexplore.ieee.org/document/6532230>

Predictive vector quantization in image coding : study of the safety-net approach

Vafin, Renat 1996

RACON modernization by digital signal processing

Arro, Ilmar; Kinks, Priit; Koževnikov, Valeri; Laidvee, Andres; Taklaja, Andres BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 309-312: ill

Reconfigurable intelligent surfaces in dynamic rich scattering environments : BiLSTM-based optimization for accurate user localization

Umer, Anum; Mürsepp, Ivo; Alam, Muhammad Mahtab 2024 3rd International Conference on 6G Networking (6GNet) 2024 / p. 122-126 <https://doi.org/10.1109/6GNet63182.2024.10765779>

Scanning radar signal postprocessing

Arro, Ilmar; Roosipuu, Priit BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 353-356: ill

Separation of independent components with partially overlapped spectra using signal-shape locked loop (SSLL) concept

Krivošei, Andrei Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuuseum 2007 / lk. 51-54 : ill

Signaalide digitaaltöötlus

Arro, Ilmar 1996 https://www.ester.ee/record=b1069843*est

Signaalide töötlemise protsessorid

Arro, Ilmar Arvutustehnika ja Andmetöötlus 1991 / 1, lk. 36-58

Simple DSP interface for impedance spectroscopy of piezo-sensors

Märtens, Olev; Reidla, Marko; Saar, Tõnis BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 343-344 : ill

Sliding mean value subtraction-based DC drift correction of B-H curve for 3D-printed magnetic materials

Asad, Bilal; Tiismus, Hans; Vaimann, Toomas; Belahcen, Anouar; Kallaste, Ants; Rassõlkin, Anton; Shams Ghahfarokhi, Payam Energies 2021 / art. 284, 10 p <https://doi.org/10.3390/en14020284> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A small-size sleep apnea pre-screening prototype for neonates and children

Leier, Mairo; Jervan, Gert Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK seitsmenda aastakonverentsi artiklite kogumik : 15.-16. novembril 2013, Haapsalu 2013 / p. 49-52 : ill

Software defined radar

Müürsepp, Ivo Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuuseum 2007 / lk. 101-103 : ill

Sonar with digital signal processing

Arro, Ilmar Microsystem Technologies 96 1996 / p. 829-831

TMS320F28335-based high-accuracy complex network analyzer instrument

Reidla, Marko; Märtens, Olev; Land, Raul EDERC 2012 : proceedings of the 5th European DSP in Education & Research Conference : 13-14 September 2012, Amsterdam, The Netherlands 2012 / p. 44-47
<https://ieeexplore.ieee.org/abstract/document/6532222>

TMS320F28335-based piezosensor monitor-node

Märtens, Olev; Saar, Tõnis; Reidla, Marko EDERC2010 European DSP in Education and Research Conference : proceedings, (Nice, France, Dec 1-2, 2010) 2010 / p. 62-65 <https://ieeexplore.ieee.org/document/6151408>

Transients in adaptive measuring channels

Kovacshazy, Tamas; Peceli, Gabor; Varkonyi-Koczy, Annamaria R. BEC'98 : the 6th Biennial Conference on Electronics and Microsystems Technology, October 7-9, 1998, Tallinn, Estonia : proceedings 1998 / p. 127-130: ill

Адаптивный способ уменьшения погрешностей измерителя отношения сигналов

Gerasimtšuk, Valeri; Meister, Ants Методы и средства цифровой обработки сигналов 1984 / с. 71-75 : илл
https://www.ester.ee/record=b1302208*est

Аппаратно-программный комплекс обработки сигналов с помощью ЭВМ "СМ-4" и "Электроника-60"

Kangur, Oleg; Lumberg, Tõnu; Niinsalu, Udo Reaalajasüsteemid automatiseeritud ergonoomilistes uuringutes = Автоматизированные системы реального времени для эргономических исследований : vabariikliku konverentsi teesid : Tartu-Kääriku, 28.-29. september 1988. a. 1988 / lk. 143-145 <https://dspace.ut.ee/handle/10062/54627> https://www.ester.ee/record=b1256601*est

Выбор цвета и его количества для представления результатов цифровой обработки на дисплее

Loitme, Olev Методы цифровой обработки и хранения радиотехнических сигналов 1987 / с. 84-93

Особенности долговременного хранения информации в комплексах цифровой обработки сигналов

Lumberg, Tõnu Методы цифровой обработки и хранения радиотехнических сигналов 1987 / с. 63-67

Радиотехника

Hinrikus, Hiie; Arro, Ilmar; Ratassepp, Jaak; Germ, Eduard; Sullakatko, Toomas; Niinsalu, Udo; Lumberg, Tõnu; Heinrichsen, Vladimir; Roosi, Aarne; Loitme, Olev; Gerasimtšuk, Valeri; Meister, Ants; Kangur, Oleg; Müller, E.; Andra, Andres; Kruming, Boris; Pungar, Eda-Tiia; Vichmann, Frederik; Jermakov, A.A.; Budarin, Vladimir; Rätsep, Ülo; Teevet, J.-T. 1984 https://www.ester.ee/record=b1302208*est

Радиотехника

Hinrikus, Hiie; Rätsep, Ülo; Ratassepp, Jaak; Niinsalu, Udo; Madar, Urve; Trump, Tõnu; Martverk, Peep; Raja, Aimur; Müller, E.; Meister, Ants; Allik, V.; Lumberg, Tõnu; Loitme, Olev; Kruming, Boris; Animägi, T.; Borštševski, A.I.; Kangur, Oleg 1987
https://www.ester.ee/record=b1273977*est

Радиотехника

Viies, Vladimir; Schults, Eduard; Andra, Andres; Martverk, Peep; Raja, Aimur; Meister, Ants; Loitme, Olev; Pungar, Eda-Tiia; Arro, Ilmar; Trump, Tõnu; Gurjanov, Boris; Belkina, I.I. 1988 https://www.ester.ee/record=b1292907*est

Цифровая регистрация гидроакустических сигналов

Lumberg, Tõnu; Sullakatko, Toomas; Ots, Avo Методы и средства обработки сигналов при наличии шумов 1982 / с. 53-57 :
ил https://www.ester.ee/record=b1312255*est <https://www.etera.ee/zoom/121735/view?page=1&p=separate&search=true&tool=search>